

REMARKS

The Office Action of November 16, 2007 has been received and carefully reviewed. It is submitted that, by this Amendment, all bases of rejection and objection are traversed and overcome. Upon entry of this Amendment, claims 1, 2, 4, 6-8, 10, 12-16 and 18-30 remain in the application. Claims 3, 5, 9, 11 and 17 are canceled herein. Reconsideration of the claims is respectfully requested.

The drawings stand objected to under 37 C.F.R. § 1.83(a). The Examiner asserts that the drawings fail to show all elements as recited in Applicants' claims 2-4, 9, 10, 17, and 18.

In response thereto, Applicants herein submit a replacement drawing sheet including amended Fig. 1, which now shows at least one baffle 18 including a peripheral portion 21 and a central portion 19. Support for the changes to Fig. 1 may be found throughout Applicants' specification as filed, at least at paragraph [0090] of Applicants' published application (U.S. Pub. No. 2005/0006068). Paragraph [0090] of Applicant's published application has also been amended to include the reference numeral 21 for the peripheral portion and the reference numeral 19 for the central portion. Applicants submit that no new matter has been introduced in light of the changes to Fig. 1 and to the specification.

Also submitted herewith is a new drawing sheet including new Fig. 9, which is a cross-sectional view taken along line 9-9 of Fig. 1. Fig. 9 shows a partition 51/fin 57 disposed in the tube 28 and configured to divide at least part of a passageway in the tube 28 into a first portion 53 and a second portion 55. Support for new Fig. 9 may be found throughout Applicants' specification as filed, at least at paragraphs [0041] – [0042] of Applicants' published application. Paragraphs [0041] – [0042] have also been amended to include the reference numeral 51 for the partition, reference numeral 53 for the first portion, reference numeral 55 for the second portion, and reference numeral 57 for the fin. Applicants submit that no new matter has been introduced in light of new Fig. 9 and the amendments to paragraphs [0041] – [0042].

In view of the above, it is submitted that the objection to the drawings under 37 C.F.R. § 1.83(a) has been obviated, and withdrawal of the same is respectfully requested.

Claims 21-28 stand objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Although Applicants do not acquiesce to the Examiner's objection, in order to expedite prosecution, Applicants have rewritten claims 21 and 22 in independent form, including all of the limitations of independent claim 7, from which claims 21 and 22 previously depended. Claims 23-28 remain dependent on one of claims 21 and 22. In view thereof, it is submitted that the Examiner's objection to claims 21-28 has been obviated, and withdrawal of the same is respectfully requested.

Claims 3, 4, 9, 10, and 14-18 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. The examiner states that the originally filed disclosure (including the drawings) fails to fully describe how, for example, the partitions included within the tubes are to be configured so as to allow the tubes to perform a passive bypass function as recited in the claims. Furthermore, the Examiner states the originally filed disclosure (including the originally filed drawings) fails to describe at all how the partitions are to be configured so as to include fins.

Applicants direct the Examiner's attention to paragraphs [0044] and [0045] of Applicants' published application, which discloses embodiments of the heat exchanger including one or more tubes divided into larger and smaller sub-passageways with different sectional areas. The interaction between viscous fluids and the different-sized passageways is described as a passive bypass function. Applicants also direct the Examiner's attention to paragraph [0043] of Applicants' published application, where a description of one or more partitions that divide the tubes into passageways is provided. Yet further, Applicants direct the Examiner's attention to paragraph [0046], where various fin structures may be used on the internal surfaces of the passageways. It is submitted that one skilled in the art would know from these paragraphs that the partition(s) form at least part of the internal surfaces of the passageways. Therefore, the configuration of the

partition(s) including the fins is clearly described in Applicants' specification as originally filed.

For these reason(s), Applicants submit that the rejection to claims 3, 4, 9, 10, and 14-18 under 35 U.S.C. § 112, first paragraph, is erroneously based, and withdrawal of the same is respectfully requested.

Claims 1, 6, 19-21, 23, 25, 27, and 29 stand rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura, et al. (U.S. Patent No. 6,173,766). The Examiner asserts that Nakamura teaches all elements of independent claims 1 and 19, and newly independent claim 21.

Although Applicants do not acquiesce to the Examiner assertion, in order to expedite prosecution, claims 1 and 19 have been amended to include a "means for performing a passive bypass function including at least one of: a passageway formed within each of the plurality of first tubes and having partitions which divide the passageway; or at least one of the first tubes, second tubes or a plurality of third tubes having a hydraulic diameter other than that of the other tubes." Newly independent claim 21 includes a similar recitation. Support for this new recitation may be found throughout Applicants' specification as filed, at least at paragraph [0045] of Applicants' published application, and in newly submitted Fig. 9. Claims 3 and 5 have been canceled in light of the amendment to independent claim 1.

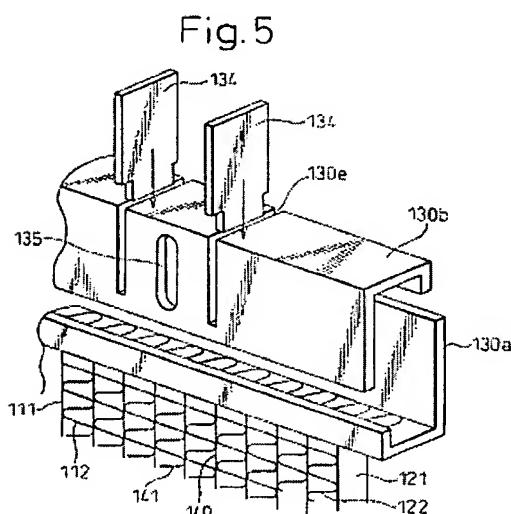
Applicants submit that Nakamura fails to disclose a heat exchanger including a means for performing a bypass function including 1) a passageway formed within each of the first tubes and having partitions that divide the passageway, and/or 2) the first tubes, second tubes, and/or third tubes having a hydraulic diameter other than that of the other tubes. As such, it is submitted that Applicants' invention as defined in claims 1, 19, and 21, and in the claims depending ultimately therefrom, is not anticipated, taught, or rendered obvious by Nakamura, either alone or in combination, and patentably defines over the art of record.

Claims 1, 2, and 6 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Kokubunji, et al. (U.S. Pub. No. 2002/0040776). The Examiner asserts that Kokubunji

anticipates all elements of the independent claim 1. The Examiner further asserts that Kokubunji discloses a baffle having a peripheral portion which is thicker (has a greater dimension) than a central portion, as shown in Fig. 5 of Kokubunji.

Applicants respectfully take issue with the Examiner's definition of "thicker," and the characterization of the baffle shown in Fig. 5 of Kokubunji. The Examiner's definition of "thicker" does not conform to the context of Kokubunji's disclosure, nor does it conform to

reasonable English usage of the word. One skilled in the art would be cognizant of the fact that, in this case, the word "thicker" refers to having a greater "thickness." The word "thickness" is defined as "the smallest of three dimensions, (length, width, *thickness*)" (emphasis added). (See <http://www.merriam-webster.com/dictionary/thickness>.) In light of this definition, one skilled in the art would characterize the baffles 134 in Fig. 5 of Kokubunji as having a single thickness; i.e., not having any area thicker than another.



Assuming *arguendo* that the Examiner's definition of the word "thicker" is applied, the baffles 134 in Kokubunji still do not read on Applicants' claim 1 because the baffles 134 in Kokubunji have a peripheral portion that is ***smaller*** (i.e., not greater) than a central portion.

For the foregoing reasons, Applicants submit that Kokubunji fails to teach all elements of independent claim 1. Accordingly, it is submitted that Applicants' invention as defined in independent claim 1, and in the claims depending ultimately therefrom, is not anticipated, taught, or rendered obvious by Kokubunji, either alone or in combination, and patentably defines over the art of record.

Claims 19 and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Marsais, et al. (U.S. Patent. No. 5,526,873). The Examiner asserts that Marsais teaches

all elements of independent claim 19. In response thereto, in view of amended claim 19, Applicants submit that Marsais fails to teach a means for performing a passive bypass function including 1) a passageway formed within each of the plurality of first tubes and having partitions which divide the passageway, and/or 2) at least one of the first tubes, second tubes or a plurality of third tubes having a hydraulic diameter other than that of the other tubes. As such, it is submitted that Applicants' invention as defined in claim 19, and in the claim(s) depending ultimately therefrom, is not anticipated, taught, or rendered obvious by Marsais, either alone or in combination, and patentably defines over the art of record.

Claims 1, 5-8, 11-16, and 19-30 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Hu (U.S. Patent No. 6,904,963). The Examiner asserts that Hu teaches all elements of independent claims 1 and 19, and newly independent claim 21.

At the outset, Applicants submit that the 35 U.S.C. § 102(e) rejection to claims 5 and 11 is moot in light of canceling the claims.

Further, independent claims 7 and 14 have been amended to recite, in part, "means for performing a passive bypass function including at least one of: a passageway formed within each of the plurality of first tubes and having partitions which divide the passageway; or at least one of the first tubes, second tubes or a plurality of third tubes having a hydraulic diameter other than that of the other tubes", similar to independent claims 1, 19, and newly independent claim 21. Newly independent claim 22 also includes a similar recitation.

Applicants submit that Hu fails to teach a means for performing a passive bypass function including 1) a passageway formed within each of the plurality of first tubes and having partitions which divide the passageway, and/or 2) at least one of the first tubes, second tubes or a plurality of third tubes having a hydraulic diameter other than that of the other tubes. As such, it is submitted that Applicants' invention as defined in claims 1, 7, 14, 19, 21, and 22, and in the claim(s) depending ultimately therefrom, is not anticipated, taught, or rendered obvious by Hu, either alone or in combination, and patentably defines over the art of record.

Claims 1, 5-8, 11-16, and 19 stand rejected under 35 U.S.C. § 102(f) because, according to the Examiner, the Applicants did not invent the claimed subject matter. Although Applicants do not acquiesce to the Examiner's rejection, in order to expedite prosecution, Applicants have amended claims 1, 7, 14 and 19. In light of the amendment to these claims, Applicants submit that these claims are patentably distinct from the claimed subject matter of Hu. As such, it is submitted that the 35 U.S.C. § 102(f) rejection to these claims, and to the claims depending ultimately therefrom, is moot, and withdrawal of the same is respectfully requested.

In summary, claims 1, 2, 4, 6-8, 10, 12-16 and 18-30 remain in the application. Claims 3, 9, 11 and 16 are canceled herein. It is submitted that, through this Amendment, Applicants' invention as set forth in these claims is now in a condition suitable for allowance.

Further and favorable consideration is requested. If the Examiner believes it would expedite prosecution of the above-identified application, the Examiner is cordially invited to contact Applicants' Attorney at the below-listed telephone number.

Respectfully submitted,

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